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Commissioner	:	<u>M. Florio</u>
Admin. Law Judge	:	<u>M. Bushey</u>
Witnesses	:	<u>K. McNabb</u>
	:	<u>S. Logan</u>



**OFFICE OF RATEPAYER ADVOCATES
CALIFORNIA PUBLIC UTILITIES COMMISSION**

**Report on the
2014 SONGS Units 2 & 3
Decommissioning Cost Estimate
and Related Decommissioning Issues**

Advice Letters for Interim Disbursements,
Reasonableness Reviews for Completed Projects,
SONGS 2 & 3 Decommissioning Cost Estimate,
SDG&E-Only Costs,
and Miscellaneous Ratemaking Issues

San Francisco, California
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TABLE OF CONTENTS

	<u>PAGE</u>
I. INTRODUCTION.....	1
II. SUMMARY OF RECOMMENDATIONS.....	1
III. ADVICE LETTER PROCESS FOR APPROVAL OF INTERIM DISBURSEMENTS FROM THE NUCLEAR DECOMMISSIONING TRUSTS	2
A. BACKGROUND.....	2
B. SCE AND SDG&E'S PROPOSALS	2
C. ORA'S ANALYSIS AND RECOMMENDATIONS.....	3
IV. REASONABLENESS REVIEWS FOR COMPLETED PROJECTS.....	4
A. ANNUAL REASONABLENESS REVIEWS	4
1. SCE'S PROPOSAL.....	4
2. ORA'S ANALYSIS AND RECOMMENDATIONS.....	5
B. REASONABLE REVIEW STANDARD	6
1. SCE'S PROPOSAL.....	6
C. ORA'S ANALYSIS AND RECOMMENDATIONS	7
1. INTERVENERS ARE AT AN INHERENT DISADVANTAGE	8
2. SCE SHOULD ALREADY BE ESTIMATING ITS DECOMMISSIONING COSTS ACCURATELY.....	9
3. THE DCE IS CONSTANTLY CHANGING.....	9
V. THE DECOMMISSIONING COST ESTIMATE (DCE)	10
A. INTRODUCTION	10
B. SUMMARY OF DCE	10
C. DECOMMISSIONING COST CATEGORIES	11
1. LICENSE TERMINATION COSTS	11
2. SPENT FUEL MANAGEMENT COSTS.....	11
3. SITE RESTORATION COSTS	12
D. REASONABLENESS OF THE DCE.....	12
1. THE DCE IS A STUDY.....	13
2. ASSUMPTIONS ARE SUBJECT TO UNCERTAINTY.....	13
3. CONTINGENCY FACTOR	14

E.	RECOMMENDATION REGARDING DCE.....	14
VI.	SONGS OPERATIONS AND MAINTENANCE BALANCING ACCOUNT	15
A.	SCE AND SDG&E REQUESTS	15
B.	ORA’S ANALYSIS AND RECOMMENDATIONS	15
VII.	DECOMMISSIONING COSTS EXCLUSIVE TO SDG&E	16
A.	SDG&E’S REQUEST	16
B.	ORA’S RECOMMENDATION	17
	QUALIFICATIONS AND PREPARED TESTIMONY OF KATHERINE C. McNABB	1
	QUALIFICATIONS AND PREPARED TESTIMONY OF SCOTT LOGAN	1
APPENDIX A: PG&E’S ADVICE LETTER 4564-E FOR APPROVAL OF INTERIM		
DISBURSEMENTS FROM THE NUCLEAR DECOMMISSIONING TRUST FUNDS –		
ATTACHMENTS 4 & 5		

1 **I. INTRODUCTION**

2 This Exhibit presents the Office of Ratepayer Advocates' (ORA) analysis
3 and recommendations regarding:

- 4 • Southern California Edison Company's (SCE) and San
5 Diego Gas and Electric Company's (SDG&E) advice
6 letter process regarding Commission approval of interim
7 disbursements from the Nuclear Decommissioning Trusts
8 (NDT) for San Onofre Nuclear Generating Station
9 (SONGS) Units 2 & 3;
- 10 • Reasonableness reviews of costs for completed
11 decommissioning activities at SONGS Units 2 & 3;
- 12 • The Decommissioning Cost Estimate (DCE);
- 13 • Establishment of the SONGS Operational and
14 Maintenance Balancing Account (SOMBA) for SCE;
- 15 • Continuation of the SOMBA for SDG&E;
- 16 • SONGS Units 2 & 3 Decommissioning Cost Estimate
17 (DCE); and
- 18 • Decommissioning costs exclusive to SDG&E.

19 **II. SUMMARY OF RECOMMENDATIONS**

20 DRA recommends:

- 21 • The Commission should require that a summary of cash
22 flows and a summary of changes to the SONGS 2 & 3
23 decommissioning timeline be included as part of SCE's
24 and SDG&E's annual advice letter process for
25 Commission approval of interim disbursements from the
26 NDTs.
- 27 • The Commission should continue its current process
28 adopted in D.10-07-047 for the review of completed
29 decommissioning projects and reject SCE's proposals
30 requiring the Commission to conduct more frequent
31 reviews and to shift the burden of proof to the interveners.
- 32 • The Commission should not make a finding that the DCE
33 is reasonable and that it is only the most recent estimate.
- 34 • SCE's proposal to establish the SOMBA should be
35 denied. Instead SCE should establish a Memorandum

(Memo) Account to record costs not eligible for recovery from the NDTs, which should be reviewed as part of the utility's application in the triennial decommissioning proceeding.

- SDG&E should submit for reasonableness review with its application in the triennial decommissioning proceeding any future costs that are not eligible for recovery from the NDTs but seeks recovery from ratepayers.
- SDG&E's should be ordered to close its SOMBA at the close of the proceeding A.15-02-006, which will review SDG&E's 2014 decommissioning costs.

III. ADVICE LETTER PROCESS FOR APPROVAL OF INTERIM DISBURSEMENTS FROM THE NUCLEAR DECOMMISSIONING TRUSTS

A. Background

SCE and SDG&E need Commission approval in order to obtain interim disbursements from their NDTs.¹ SCE and SDG&E each propose an Advice Letter process to obtain this approval. Below is a summary of their respective proposals:

B. SCE and SDG&E's Proposals

SCE proposes to submit an Advice Letter at least once every calendar year.²

In the Advice Letter filing, SCE would provide:

- A summary of all previous funding requests and trust withdrawals, summarized by major cost category, and correlated to the most recent adopted cost study.³
- A list of work to be performed in each major cost category during the period covered by that Advice Letter.

¹ Ex. SDG&E-01: Prepared Direct Testimony in Support of the 2014 Decommissioning Cost Estimates on Behalf of San Diego Gas and Electric Company, p. 17; SCE-01: Testimony on the Nuclear Decommissioning of SONGS 2 & 3, p. 37.

² Ex. SCE-01, p. 37.

³ Ex. SCE-01, p. 38.

- A comparison chart that would track the forecast and actual decommissioning expenditures for the entirety of the project, up to the end of the period covered by the previous Advice Letter, and a forecast of future project expenditures.

For the most part SDG&E's proposal mirrors SCE's proposal. In addition to the information that SDG&E would provide regarding their portion of the shared SONGS decommissioning costs, SDG&E will also provide similar information on its SDG&E-only costs.⁴ Furthermore, SDG&E requests that the Commission allow it 60 days from the time it receives cost reports from SCE to file its Advice Letter.⁵

C. ORA's Analysis and Recommendations

ORA has reviewed the proposals of both SCE and SDG&E regarding the information that their Advice Letter filings would include. ORA does not oppose any of these proposals but recommends that the Commission require some additional information be included in each Utilities' Advice Letter filings.

ORA recommends that the Commission require both SCE and SDG&E to submit a summary of (1) cash flows and (2) major scheduling changes or shifts. These data have been included in recent PG&E filings for its Humboldt Bay Power Plant (HBPP), and are useful to ORA when reviewing those Advice Letters. This information would also give the Commission a more complete picture of how decommissioning is progressing and the impacts of changes that have occurred since the last DCE was submitted.

ORA recommends that the summary of cash flows should include (1) estimated cash flows by year for the most recent DCE and (2) an updated cash flow that incorporates any timing or estimated changes that have occurred since

⁴ Ex. SDGE-01, p. 18.

⁵ Ex. SDGE-01, p. 18.

1 the last DCE was approved. This information should be provided in both base
2 year dollars and nominal dollars. These criteria are modeled after the cash flow
3 information that PG&E includes with its annual Advice Letters, which is attached
4 as Appendix A.

5 ORA recommends that SCE and SDG&E alert the Commission to any
6 project that has had a major schedule change in their annual Advice Letter filings,
7 regardless of whether that project has a variance of plus or minus ten percent.
8 This would apply to any project with a timing change or which is significantly
9 behind schedule. The information should include the originally scheduled and the
10 revised dates for the beginning and end of the project, and a narrative justifying
11 the change in the annual Advice Letter filing.

12 **IV. REASONABLENESS REVIEWS FOR COMPLETED PROJECTS**

13 **A. Annual Reasonableness Reviews**

14 **1. SCE's Proposal**

15 SCE proposes that the Commission authorize it to file annual applications
16 seeking reasonableness review of the costs for completed decommissioning
17 activities occurring during the prior calendar year.⁶ SCE defines a completed
18 project based on the criteria presented in D.03-10-015:

19 A decontamination and dismantling activity is
20 completed if: (1) the activity has been completed in its
21 entirety or (2) the activity has eliminated a specifically
22 identifiable decommissioning liability.

23 Decommissioning liability is eliminated when material
24 is removed from the SONGS site.⁷

⁶ Ex. SCE-01, p. 42.

⁷ D.03-10-015.

1 SCE is also proposing to submit Undistributed Cost activities for
2 reasonableness review, because these costs are incurred in each calendar year and
3 cannot be measured by discrete project milestones.⁸

4 **2. ORA's Analysis and Recommendations**

5 While ORA does not oppose the standard that SCE proposes for the
6 determination of complete projects, ORA does oppose SCE's request for more
7 frequent reasonableness reviews. SCE's reasons for changing the Commission's
8 current triennial review of completed projects are not compelling. The triennial
9 review process is currently used to review completed projects for SONGS 1 and
10 HBPP, and ORA supports its continuation.⁹ The only reason that SCE gives to
11 support its proposed annual review process is that it would be less risky for SCE.¹⁰
12 This decreased risk for SCE does not justify the significant burdens that such a
13 proposal would impose on the Commission and interveners.

14 Annual reasonableness reviews would be both time- and resource-intensive
15 for the Commission and interveners. In 2014, the average length of time for the
16 CPUC to conclude a formal application-type proceeding was 1.4 years.¹¹ It took
17 the Commission almost 15 months to issue the Phase I Decision in the last
18 NDTCP and over two years to issue the Phase II Decision.¹² This data
19 demonstrates the difficulty of completing a proceeding once a year, every year, for
20 the next 37 years.¹³

⁸ SCE Response to DRA Data Request ORA-SCE/SDG&E – 001, Q 10.b.

⁹ In the 2012 NDCTP (A.12-12-012 and A.12-12-013) SCE requested review of \$14.9 million of SONGS 1 decommissioning work and PG&E requested review of four projects that had been completed since the 2009 NDCTP.

¹⁰ Ex. SCE-01, p. 42.

¹¹ PG&E's application in A.12-12-012 was filed on December 12, 2012 and the Phase I and Phase II were issued on March 5, 2014 and December 22, 2014, respectively.

¹² Report on Key Findings from CPUC Modernization and Reform Project, p. 3, fn. 3.

¹³ SCE has indicated that it will conclude its ISFSI decommissioning in 2052.

1 Reasonableness reviews are resource intensive, and entail a substantial
2 effort and time commitment. The years when the reasonableness of many large
3 projects must be determined or when the reasonableness reviews are combined
4 with a DCE update, it may take even more time for interveners to conduct a
5 thorough review, issue discovery, make forecasts, and prepare testimony.
6 Ultimately, one reasonableness review proceeding will run into the next, and then
7 the next, etc., until the Commission's docket is congested and unmanageable. If
8 adopted, SCE's proposal would quickly exhaust ORA's and Interveners' resources
9 without improving any of the Commission's current processes.

10 ORA does not oppose SCE's request that the Commission review its
11 Undistributed Costs separately from its completed distributed projects; however,
12 this review should take place in the course of the triennial proceedings along with
13 the completed projects.

14 **B. Reasonable Review Standard**

15 **1. SCE's Proposal**

16 First, SCE recommends the following standard by which the reasonableness
17 of a completed decommissioning project would be determined:

18 [W]e define reasonableness for decommissioning
19 expenditures consistent with prior Commission
20 findings; i.e., that the reasonableness of a particular
21 management action depends on what the utility should
22 have known at the time the managerial decision was
23 made.¹⁴

24 Second, SCE proposes that in exchange for providing a summary level
25 forecast for each decommissioning activity to be completed in the following year,
26 the Commission should modify its standard for reasonableness reviews, as
27 follows. If a completed activity in a particular cost category and period is below its

¹⁴ Ex. SCE-01, p.42, quoting D.10-07-047, p. 45.

1 approved cost estimate then it should be presumed reasonable, thus shifting the
2 burden of proof to ORA and interveners to prove unreasonableness.¹⁵

3 **C. ORA's Analysis and Recommendations**

4 ORA does not oppose using the standard set forth in D.10-07-047 for
5 reviewing completed decommissioning projects. However, ORA strongly opposes
6 SCE's proposal to shift the burden of proof for reviewing completed
7 decommissioning projects to ORA and interveners as unreasonable and
8 unjustified. The Commission should maintain its current after-the-fact
9 reasonableness review process.

10 In D.10-07-046, the Commission rejected a similar proposed shift in the
11 burden of proof.¹⁶ Such a change would unfairly disadvantage ORA, interveners,
12 and the ratepayers they represent in reasonableness review proceedings; it
13 provides a further incentive for SCE to over-estimate its decommissioning costs;
14 and it only takes cost into account, while ORA typically conducts a more focused
15 reasonableness review.

16 In the 2009 NDCTP, PG&E, SDG&E, and SCE argued for the same
17 proposal in their joint brief, stating:

18 In any future review of the decommissioning
19 expenditures incurred during the remaining Phases 2
20 and 3 of the decommissioning of SONGS Unit 1, the
21 future decommissioning of SONGS Units 2 & 3, and
22 the Decommissioning of HBPP Unit 3, the
23 Commission should presume that, to the extent those
24 expenditures are within the most recent Commission
25 approved cost estimate (including the adopted
26 contingency factor) for the associated

¹⁵ Ex. SCE-01, p. 45.

¹⁶ D.10-07-047, p. 46.

1 decommissioning activities, such expenditures are
2 prudently incurred and are reasonable.¹⁷

3 The Commission rejected this proposal in the 2009 NDCTP Decision
4 stating:

5 Based on the knowledge and experience since gained
6 by the Commission, it is clear that this is an important
7 review process, influenced by speculative cost
8 estimates and safety concerns, not suitable for an
9 abbreviated method of oversight. At this time, we find
10 that a full after-the-fact review of both costs and
11 conduct best serves the interests of ratepayers and the
12 public.¹⁸

13 It is clear that the Commission has already decided this issue, and has
14 begun using an after-the-fact review for determining the reasonableness of
15 completed decommissioning projects at HBPP Unit 3. It is in the best interest of
16 ratepayers to apply the same type of review to decommissioning projects for
17 SONGS Units 2 & 3 as had been applied at HBPP Unit 3.

18 Some of the major justifications for a robust after-the-fact reasonableness
19 review are as follows:

20 **1. Interveners Are at an Inherent Disadvantage**

21 Interveners are inherently disadvantaged when participating in a
22 reasonableness review proceeding. Interveners have a very limited period of time
23 to conduct a detailed review of a large amount of information on each completed
24 decommissioning project. The Utility has its staff and consultants that work with
25 this information on a daily basis and are intimately familiar with it. Interveners
26 must rely on the Utility to provide them information in a meaningful format and a
27 timely manner. Each intervener may have one to three people working on a

¹⁷ Joint Brief of Pacific Gas and Electric Company, San Diego Gas and Electric Company, and southern California Edison Company on Decommissioning Expenditure Reasonableness Review Issues, A.09-04-009 and A.09-04-007, p. 2.

¹⁸ D.10-07-047, p. 46.

1 NDCTP proceeding, while SCE and SDG&E have extensive teams covering each
2 specialized subject area. The Commission has even recognized that Utilities enjoy
3 a natural litigation advantage in ratemaking proceedings, reinforcing the
4 importance of placing the burden of proof on the Utilities.¹⁹ Therefore shifting the
5 burden of proof to interveners is not only unfair and unjust but it would give SCE
6 an even greater advantage in a reasonableness review process.

7 **2. SCE Should Already Be Estimating Its** 8 **Decommissioning Costs Accurately**

9 SCE argues that its proposal would “[i]mpose greater rigor upon SCE to
10 accurately estimate the costs of decommissioning work that is scheduled to be
11 completed during each calendar year.”²⁰ First, this is only SCE’s opinion
12 unsupported by any data.

13 Second, SCE is legally obligated to estimate its decommissioning costs as
14 accurately as possible. Otherwise, under Public Utilities Code § 451, it would be
15 imposing unreasonable and unfair burdens on ratepayers. Therefore, SCE’s
16 proposed abbreviated reasonableness review process should not lead to more
17 accurate decommissioning cost estimates.

18 Third, as the Commission identified in the 2009 NDCTP Decision,
19 switching to a rebuttable-presumption type of reasonableness review would
20 encourage SCE to overestimate its costs, because it will make it easier to have
21 them approved when the time comes to review their reasonableness.²¹ Therefore,
22 SCE’s proposal would cause more harm than good.

23 **3. The DCE is Constantly Changing**

24 Cost estimates are just that: estimates. This Commission’s own experience
25 with decommissioning proves how inaccurate they can be. In the most recent

¹⁹ D.00-02-046, p. 36.

²⁰ Ex. SCE-01, p. 45.

²¹ D.10-07-047, p. 49.

1 NDCTP, the Commission approved a nearly \$400 million increase of the HBPP
2 decommissioning cost estimate because of higher levels of contamination than
3 PG&E had initially anticipated.²² In the case of SONGS 2 & 3, the DCE has
4 increased by almost 98% over the 2002 estimate.²³ Estimates constantly change
5 because of current information available to the Utility about the site and the
6 current industry decommissioning practices.

7 Ultimately, the Commission should conduct a robust review of each
8 decommissioning project after it has been completed, allowing the cost, scope,
9 timing, and prudence of management decisions to be assessed in a holistic and
10 comprehensive review of each project.

11 **V. THE DECOMMISSIONING COST ESTIMATE (DCE)**

12 **A. Introduction**

13 In its testimony, SCE requests that the updated \$4.411 billion (100% share,
14 2014 \$) SONGS 2 & 3 Decommissioning Cost Estimate (DCE) be found
15 reasonable.²⁴ The DCE is presented in Appendix A-1 of Exhibit SCE-01, which
16 was prepared by Energy *Solutions*, LLC and is dated September 5, 2014. ORA
17 has reviewed the DCE; this section provides our review, analysis, and
18 recommendations.

19 **B. Summary of DCE**

20 The DCE is divided into three major activity categories, and each activity
21 category is segmented into six or seven work activity periods. The three major
22 activity categories are:

- 23 • License Termination;
- 24 • Spent Fuel Management; and

²² D.14-02-024, p. 2.

²³ The cost estimate for the SONGS Units 2 & 3 decommissioning in 2002 was \$2.23 billion. D.02-03-039, p. 7.

²⁴ Ex. SCE-01, p. 1.

- Site Restoration.

The DCE provides estimates for each category and period, and segmented between SONGS Units 2 & 3. Hence, the DCE contains 38 separate cost estimates covering June 2013 until December 2051. See Table 6-1 of the DCE.²⁵

C. Decommissioning Cost Categories

This section describes the decommissioning cost categories.

1. License Termination Costs

Under Nuclear Regulatory Commission (NRC) regulations, SCE is required to reduce radiological activity at the SONGS site to a level that allows release of the property for unrestricted use.²⁶ The license termination costs include all costs to decontaminate the site and terminate the NRC licenses.²⁷ The major activities for the decontamination and dismantling period are scheduled for the 2015-2024 timeframe. The total costs for License Termination activities are estimated to be \$2.112 billion.²⁸

2. Spent Fuel Management Costs

The spent nuclear fuel management costs involve two major activities. First, the spent nuclear fuel is temporarily stored in the site's spent fuel pools for cooling purposes (wet storage). After about five years of cooling, the fuel will be transferred to on-site canisters for its next stage of storage (dry storage). Ultimately, the United States (U.S.) Department of Energy (DOE) is obligated to remove the fuel and transfer it to a permanent facility.²⁹ The DCE assumes that the transfer to the DOE will be completed in 25 years, beginning in 2024. The total estimated cost for spent fuel management is \$1.276 billion.

²⁵ Ex. SCE-01, p. A-1-35.

²⁶ Ex. SCE-01, p. 23.

²⁷ Ex. SCE-01, p. 24.

²⁸ Ex. SCE-01, p. A-1-35.

²⁹ Ex. SCE-01, p. 24.

1 **3. Site Restoration Costs**

2 SCE leases the property associated with the SONGS site from the U.S.
3 Department of Navy. Under the terms of the lease, SCE may be obligated to
4 remove all site improvements before the property is returned to the Navy. SCE
5 indicates that the conditions in the lease are under discussion and may be
6 modified.³⁰ Presumably, any changes to the lease requirements will be favorable
7 to SCE and will reduce the site restoration costs. For now, the DCE assumes that
8 SCE will be obligated to remove all site improvements.

9 SCE also has a lease with the California State Lands Commission (CSLC)
10 which governs its offshore circulating water conduits for the SONGS units.
11 Similar to the Navy lease, SCE is obligated to remove and dispose of the system of
12 conduits; such costs are included in the DCE.³¹ SCE indicates it will seek to
13 amend the lease.³²

14 The total site restoration costs are \$1.023 billion, according to the DCE.

15 **D. Reasonableness of the DCE**

16 SCE requests the Commission find that the \$4.411 billion is reasonable.
17 ORA recommends that the Commission not make such a finding, for several
18 reasons. First and foremost, as discussed above, ORA's recommended process for
19 reviewing recorded decommissioning costs is not based on strict comparison of
20 actual costs versus estimated costs. Further, by SCE's own presentation, the DCE
21 is a *preliminary study*, not an *engineered* estimate, and subject to *update*. ORA
22 recommends that the Commission accept the current DCE as the most recent DCE,
23 but not make a finding of reasonableness of the DCE.

³⁰ Ex. SCE-01, p. 25.

³¹ Ex. SCE-01, p. 26.

³² Ex. SCE-01, p. 26.

1 **1. The DCE is a Study**

2 Section 3.0 of the DCE describes the “Study Methodology”; Section 4.0,
3 the “Site Specific Technical Approach”; and Section 5.0, the “Basis of Estimate
4 and Key Assumptions.” These sections briefly describe the cost model
5 (Section 3.0), the staffing and scheduling (Section 4.0), and the 43 key
6 assumptions used to develop the estimate (Section 5.0). SCE’s testimony is
7 probably the best language to describe the study:

8 It is important to note..., the (DCE) is *not an*
9 *engineered estimate for each decommissioning*
10 *activity*. In addition, this estimate is necessarily based
11 on assumptions regarding certain *project costs that*
12 *remain unknowable at this time*, such as the timing and
13 rate of the removal of the spent fuel from the SONGS
14 site by DOE. Accordingly, *SCE will continue to*
15 *update the DCE as decommissioning proceeds*, the
16 detailed plans for decommissioning activities are
17 engineered, and specialty contractor pricing is
18 identified as contracts are executed.³³

19 Based on SCE’s testimony, and the document prepared by Energy
20 *Solutions*, the DCE can only be characterized as a study and most certainly is
21 subject to updating and modification.

22 **2. Assumptions Are Subject to Uncertainty**

23 By definition, the assumptions which are used in any cost study are subject
24 to uncertainty. As previously mentioned, the DCE assumes that the DOE will
25 commence the spent fuel transfer activity in 2024 which will last 25 years. While
26 that assumption may be based on the best available information today, there is
27 absolutely no way to be certain if the fuel transfer activity will commence at that
28 time or anywhere near that time. The DOE decision on the location and
29 availability of a permanent spent nuclear fuel site has yet to be made.³⁴

³³ Ex. SCE-01, p. 23 (emphasis added).

³⁴ Ex. SCE-01, p. A-1-26.

1 Another assumption subject to uncertainty is that there is no site specific
2 contaminated soil which will require remediation.³⁵ ORA reviewed the underlying
3 document that is the basis for this assumption.³⁶ ORA notes that the document was
4 prepared in 2007 and was based on the assumption that the SONGS units would
5 operate until the end of their licenses. The study appears to be a “snapshot” of
6 information, primarily based on employee interviews. A final Historical Site
7 Assessment (HSA) will supplant the one currently used for the DCE, but the final
8 HSA has yet to be prepared. The new information could impact the DCE’s
9 assumptions regarding soil contamination, potential remediation, and associated
10 cost increases.

11 **3. Contingency Factor**

12 SCE states that all post 2014-costs are estimated using a 25 percent
13 contingency factor.³⁷ The DCE notes several categories of exceptions to the 25
14 percent factor.³⁸ Putting aside the exceptions, it is important to recognize that over
15 time, as the planning phase moves closer to the engineering phase with each major
16 activity, the contingency factor will decrease to 5-15 percent.³⁹ Considering that
17 the decommissioning project is over \$4 billion, there will be significant changes
18 over time to the budget just based on the contingency factor changes.

19 **E. Recommendation Regarding DCE**

20 The DCE is a work-in-progress. Based on ORA’s recommended
21 reasonableness review process for recorded costs, there is no need to deem the
22 decommissioning cost estimate as reasonable. It can merely be acknowledged as
23 the current DCE for SONGS 2 & 3.

³⁵ Ex. SCE-01, p. A-1-27.

³⁶ SCE/SDG&E Data Response to ORA-01-A14-12-007, Q.10. SCE marked the document confidential.

³⁷ Ex. SCE-01, p. 27.

³⁸ Ex. SCE-01, p.A-1-20.

³⁹ Ex. SCE-01, p. A-1-20.

1 **VI. SONGS OPERATIONS AND MAINTENANCE BALANCING ACCOUNT**

2 **A. SCE and SDG&E Requests**

3 SCE has requested authority to establish the SONGS Operations and
4 Maintenance Balancing Account (SOMBA), a two-way balancing account that
5 will be used to track SONGS O&M expenses that cannot be funded through the
6 NDTs.⁴⁰ SDG&E on the other hand has proposed to record all trust-eligible
7 SONGS costs that occur as of January 1, 2015, in a memorandum account, the
8 SONGS 2 & 3 Closure Non-Investment Related Expense Memorandum
9 Account.⁴¹

10 **B. ORA's Analysis and Recommendations**

11 ORA opposes SCEs request to establish a two-way balancing account and
12 recommends SCE record its decommissioning costs in a memorandum account.
13 SCE should be required to seek approval of any non-trust-eligible costs in its
14 triennial decommissioning proceedings. ORA recommends the same treatment for
15 any SDG&E decommissioning costs.

16 A memorandum account allows both SCE and SDG&E to track all costs
17 that are not eligible for recovery from the NDTs and request recovery of those
18 costs through an application, logically as part of the triennial nuclear
19 decommissioning proceedings. According to SCE's testimony, SCE will transfer
20 any under-collection from the SOMBA and debit its Base Revenue Requirement
21 Balancing Account (BRRBA).⁴² Additionally, SCE would credit any over-
22 collection from SOMBA to SCE's Energy Resource Recovery Account (ERRA).⁴³

⁴⁰ Ex. SCE-02, p. 19. SCE has not provided examples of SONGS O&M costs that could not be funded through the NDTs.

⁴¹ Ex. SDGE-02, pp.10-11.

⁴² Ex. SCE -01, p. 19.

⁴³ Ex. SCE -01, p. 19.

1 A memorandum account, as compared with a balancing account, is the
2 more appropriate treatment for the potential O & M costs in question. SOMBA-
3 related debits and/or credits will eventually be reviewed in the General Rate Case
4 (GRC) or Advice Letter process that addresses the BRRBA. This type of review
5 will not provide the transparency and accountability ratepayers deserve for any
6 unusual costs which by definition were unforecasted.

7 Since SCE was ordered to remove all SONGS costs from its GRC and
8 accordingly has no authorized O&M expense associated with SONGS, an over-
9 collection is unlikely.⁴⁴ Accordingly, all of the non-NDT eligible costs will be
10 additional costs that ratepayers have to bear, and ratepayers deserve a transparent
11 review of these costs.

12 SDG&E has indicated in its testimony that it has been ordered to maintain
13 its SOMBA until the resolution of A.15-02-006.⁴⁵ ORA recommends that the
14 Commission order SDG&E to close its SOMBA at the close of that proceeding.

15 **VII. DECOMMISSIONING COSTS EXCLUSIVE TO SDG&E**

16 **A. SDG&E's Request**

17 SDG&E is seeking approval for its \$16.662 million estimate of
18 decommissioning cost exclusive to SDG&E.⁴⁶ In order to provide appropriate
19 oversight of SONGS decommissioning activities, \$10.621 million of this estimate
20 is allocated to Labor.⁴⁷ SDG&E proposes to maintain three full-time equivalents
21 (FTEs) through 2016 for this review. After 2016, SDG&E proposes to downsize
22 to two FTEs through 2025, then one FTE through 2032 and zero FTEs after 2032.
23 Additionally, SDG&E will employ one FTE to provide fiscal oversight during

⁴⁴ Joint Scoping Memo and Ruling of Assigned Commissioner and Assigned Administrative Law Judges in A.13-11-003, pp. 4-6.

⁴⁵ Ex. SDGE-02, p. 9.

⁴⁶ Ex. SDGE-01, p. 13.

⁴⁷ Ex. SDGE-01, p. 14.

1 decommissioning of its Independent Spent Fuel Storage Installation (ISFSI) from
2 approximately 2049 through 2051.⁴⁸ The remaining \$6.041 million is for non-
3 labor activities, including a SDG&E specific decommissioning consultant, outside
4 legal counsel, and other direct costs related to oversight activities.⁴⁹

5 **B. ORA's Recommendation**

6 After reviewing SDG&E's estimate, ORA does not oppose it. ORA
7 recommends that the Commission review these costs with the same process to be
8 used to review the SONGS Undistributed Costs, as discussed in Section 4 of this
9 Exhibit.

10

⁴⁸ Ex. SDGE-01, p. 15.

⁴⁹ Ex. SDGE-01, pp.14-16.

**QUALIFICATIONS AND PREPARED TESTIMONY OF
KATHERINE C. McNABB**

Q.1. Please state your name and business address.

A.1. My name is Katherine McNabb. My business address is 505 Van Ness Avenue, San Francisco, California, 94102.

Q.2. By whom are you employed and in what capacity?

A.2. I am employed by the California Public Utilities Commission as a Public Utilities Regulatory Analyst III in the Office of Ratepayer Advocates Energy Cost of Service and Natural Gas Branch.

Q.3. Briefly describe your relevant educational background and work experience.

A.3. I received a Bachelor of Arts Degree in Political Science and minor in Agriculture Business from California Polytechnic State University, San Luis Obispo. I have previously testified about decommissioning issues in Phase I and Phase II of the 2012 Nuclear Decommissioning Costs Triennial Proceeding, and about SONGS Marine Mitigation Projects in SCE's TY 2015 Rate Case.

Q.4. What is the purpose of your testimony?

A.4. I am responsible for the sections in Exhibit ORA-01 addressing Advice Letters for Interim Disbursements, Reasonableness Reviews for Complete Projects, SDG&E-Only Costs, and Miscellaneous Ratemaking Issues.

Q.5. Does that complete your prepared testimony?

A.5. Yes, it does.

**QUALIFICATIONS AND PREPARED TESTIMONY OF
SCOTT LOGAN**

Q.1. Please state your name and business address.

A.1. My name is Scott Logan. My business address is 505 Van Ness Avenue,
San Francisco, California, 94102.

Q.2. By whom are you employed and in what capacity?

A.2. I am employed by the California Public Utilities Commission as a Public
Utilities Regulatory Analyst V in the Office of Ratepayer Advocates (ORA)
Energy Cost of Service and Natural Gas Branch. I have testified on behalf
of ORA in numerous energy proceedings since 1987.

Q.3. Briefly describe your relevant educational background and work
experience.

A.3. I received a Bachelor of Arts Degree in Economics from San Francisco
State University. I have previously testified about nuclear issues in Phase I
and Phase II of SONGS Investigation, I.12-10-013, PG&E's 2012 General
Rate Case (GRC), and SCE's 2015 GRC.

Q.4. What is the purpose of your testimony?

A.4. I am responsible for the Decommissioning Cost Estimate (DCE), in Exhibit
ORA-01.

Q.5. Does that complete your prepared testimony?

A.5. Yes, it does.

APPENDIX A

**PG&E'S ADVICE LETTER 4564-E
FOR APPROVAL OF INTERIM DISBURSEMENTS FROM THE
NUCLEAR DECOMMISSIONING TRUST FUNDS –
ATTACHMENTS 4 & 5**

Attachment 4

Comparison of Actual to Forecast Annual Cash Flow

Original Cash Flow ¹

(2011\$)						
Year	PG&E Labor	Equipment & Materials	Contractor Labor	Process & Burial	Other	TOTAL
2012	14,908,641	1,752,891	45,344,058	11,721,159	-	73,726,749
2013	13,593,107	3,727,855	77,444,736	25,111,150	21,257,526	141,134,373
2014	10,857,764	2,383,806	97,795,572	27,252,627	25,651,326	163,941,094
2015	9,931,822	1,905,348	42,482,876	23,650,210	12,370,949	90,341,205
2016	8,851,097	1,305,390	43,031,491	18,205,570	11,787,915	83,181,463
2017	9,604,270	906,191	25,733,626	9,749,249	7,921,004	53,914,340
2018	8,041,353	254,940	11,994,356	8,273,303	4,711,525	33,275,478
2019	4,708,729	-	2,957,405	-	1,286,251	8,952,386
2020	3,074,423	-	1,137,360	-	635,683	4,847,467
2021	2,923,160	-	847,024	-	538,280	4,308,464
2022	2,923,160	-	847,024	-	538,280	4,308,464
2023	2,923,160	-	847,024	-	538,280	4,308,464
2024	2,923,160	-	1,298,102	-	722,745	4,944,007
2025	2,923,160	-	4,324,836	-	2,000,625	9,248,622
TOTAL	98,187,009	12,236,421	356,085,492	123,963,268	89,960,388	680,432,577

(Nominal \$)						
Year	PG&E Labor	Equipment & Materials	Contractor Labor	Process & Burial	Other	TOTAL
2012	15,324,592	1,783,825	46,256,494	12,028,254	-	75,393,165
2013	14,362,183	3,859,797	80,629,253	26,619,441	22,019,556	147,490,230
2014	11,792,150	2,505,499	104,298,164	30,163,574	26,979,269	175,738,656
2015	11,087,469	2,034,520	46,497,007	27,322,896	13,221,002	100,162,893
2016	10,156,672	1,416,556	48,377,485	21,962,395	12,806,383	94,719,491
2017	11,328,426	998,821	29,763,652	12,251,499	8,743,155	63,085,553
2018	9,749,564	285,642	14,281,994	10,818,843	5,288,118	40,424,160
2019	5,868,278	-	3,622,369	-	1,467,215	10,957,861
2020	3,938,415	-	1,433,890	-	737,213	6,109,518
2021	3,849,119	-	1,098,241	-	634,940	5,582,300
2022	3,956,509	-	1,130,106	-	646,013	5,732,628
2023	4,066,896	-	1,161,971	-	657,256	5,886,123
2024	4,180,362	-	1,831,880	-	897,583	6,909,825
2025	4,296,994	-	6,281,040	-	2,527,089	13,105,123
TOTAL	113,957,628	12,884,660	386,663,545	141,166,901	96,624,791	751,297,525

Spent Prior to 2012 254,750,103
Total Project Baseline 1,006,047,628

Note:

1. Reflects reduction of \$47.2M (2011\$)

Updated Cash Flow

(2011\$)						
Year	PG&E Labor	Equipment & Materials	Contractor Labor	Process & Burial	Other	TOTAL
2012	17,820,563	3,276,957	51,199,900	10,903,094	997,389	84,197,903
2013	13,014,992	2,419,316	60,570,481	17,335,231	889,694	94,229,715
2014	7,932,937	1,718,204	68,345,461	865,350	307,331	79,169,283
2015	8,055,558	3,476,893	73,942,682	22,295,616	1,277,948	109,048,696
2016	6,841,086	372,109	42,760,395	40,602,744	29,308,909	119,885,243
2017	6,632,153	316,610	28,120,007	17,640,149	13,294,354	66,003,273
2018	6,632,119	506,506	21,740,745	7,375,030	13,294,354	49,548,754
2019	5,735,394	149,826	10,273,155	6,946,053	24,699,357	47,803,785
2020	2,817,562	-	1,031,734	-	1,324,284	5,173,580
2021	2,679,950	-	768,361	-	654,480	4,102,791
2022	2,679,950	-	768,361	-	554,196	4,002,508
2023	2,679,950	-	768,361	-	554,196	4,002,508
2024	2,679,950	-	1,177,548	-	744,116	4,601,614
2025	2,679,950	-	3,923,192	-	2,059,782	8,662,924
TOTAL	88,882,115	12,236,421	365,390,386	123,963,268	89,960,388	680,432,577

(Nominal \$)						
Year	PG&E Labor	Equipment & Materials	Contractor Labor	Process & Burial	Other	TOTAL
2012	18,317,757	3,334,788	52,230,169	11,188,755	1,015,099	86,086,569
2013	13,751,360	2,504,945	63,061,131	18,376,465	921,588	98,615,488
2014	8,615,621	1,805,918	72,889,866	957,781	323,241	84,592,428
2015	8,992,886	3,712,607	80,929,392	25,757,944	1,365,760	120,758,590
2016	7,850,176	403,797	48,072,710	48,981,355	31,841,177	137,149,216
2017	7,822,755	348,974	32,523,753	22,167,684	14,674,226	77,537,391
2018	8,040,968	567,502	25,887,274	9,644,189	14,921,306	59,061,239
2019	7,147,764	170,556	12,583,042	9,452,002	28,174,334	57,527,698
2020	3,609,369	-	1,300,726	-	1,535,795	6,445,890
2021	3,528,868	-	996,248	-	772,007	5,297,122
2022	3,627,323	-	1,025,154	-	665,115	5,317,592
2023	3,728,525	-	1,054,060	-	676,690	5,459,276
2024	3,832,551	-	1,661,754	-	924,124	6,418,429
2025	3,939,479	-	5,697,724	-	2,601,812	12,239,016
TOTAL	102,805,403	12,849,087	399,913,004	146,526,175	100,412,273	762,505,941

Spent Prior to 2012 254,750,103
Total Project Forecast 1,017,256,044

Attachment 5

Comparison of Actual to Forecast Project Schedule

HBPP Unit 3 Comparison Forecast to Actual Schedule					
Activity Name	2012 NDCTP Expected Start	2012 NDCTP Expected Finish	Most Recent Forecast Start	Most Recent Forecast Finish	Explanation of Major Changes
1) RPV Equipment & System Removal					
RPV Internals Removal & Segmentation	27-Mar-12	10-Sep-13	27-Mar-12 A	27-Sep-13 A	
Cask Operations & Loading - Casks 3, 4, 5, 7 & 8	28-Jun-13	8-Oct-13	28-Jun-13 A	7-Feb-14 A	
Control Rod Blade Loading & Shipping	1-Aug-13	10-Sep-13	2-Aug-13 A	4-Sept-13 A	
Contractor Final SFP Cleaning & Equipment Removal	11-Sep-13	9-Oct-13	22-Jul-13 A	27-Sep-13 A	
GTCC Mobilization & Cask 6 Loading	24-Oct-13	26-Dec-13	5-Nov-13 A	25-Nov-13 A	
Decon Facility Removal	27-Dec-13	31-Jan-14	9-Oct-13 A	22-Oct-13 A	
Drywell Containment Building	3-Feb-14	15-Apr-14	18-Nov-13 A	14-Feb-14 A	
RPV Shell Segmentation	16-Apr-14	24-Mar-15	18-Feb-14 A	2-Jul-15	
Drywell Insulation Removal	25-Mar-15	6-Jul-15	6-Jul-15	12-Aug-15	
Drywell Piping Removal	7-Jul-15	29-Sep-15	12-Aug-15	20-Dec-17	Work re-sequenced to be removed more efficiently with Caisson
Emergency Condenser Interference Removals	26-Jul-13	23-Sep-13	9-Aug-13 A	16-Oct-13 A	
2) Balance of Equipment & System Removals					
Emergency Condenser Vent Piping Removal	16-Apr-14	5-Jun-14	9-Aug-13 A	28-Sep-13 A	
Emergency Condenser Removal	6-Jun-14	24-Jul-14	6-Dec-13 A	20-Dec-13 A	
SFP Pumps & Filters Removal	28-Jan-14	28-May-14	14-Nov-13 A	14-Mar-14 A	
Condensate Demineralizer Equipment Removals	9-Jan-14	13-Apr-15	23-Jan-14 A	26-Jun-14 A	
LRW Phase 2 Equipment Removals	2-Jul-13	14-May-14	3-Jul-13 A	14-Mar-14 A	
FIXS Installation & Testing	2-Jan-13	24-Jul-13	2-Jan-13 A	1-Aug-13 A	
FIXS Collection & Process Readiness	3-Sep-13	5-Nov-13	14-Oct-13 A	11-Dec-13 A	
Suppression Chamber East Removals	5-Nov-12	10-May-13	21-Dec-12 A	26-Apr-13 A	
CRDM Removals	24-May-13	23-Oct-13	25-Jun-13 A	12-Feb-14 A	
Suppression Chamber West Removals	10-Jun-13	1-Aug-13	10-Jun-13 A	26-Feb-14 A	
Access Shaft Component Removal -66 Elev.	24-Oct-13	14-Jan-14	7-Jan-14 A	12-Jun-14 A	
Access Shaft Component Removal -54 to -44 Elev.	15-Jan-14	6-Jun-14	25-Feb-14 A	29-May-14 A	
Access Shaft Component & Block Walls Removals -34 to -2 Elev.	2-Jul-13	14-Oct-14	2-Jul-13 A	28-Apr-14 A	
Valve Gallery Component Removals - Phase 2	9-Apr-13	8-May-14	9-Apr-13 A	21-Mar-14 A	
Trailer City Move & Staff Relocation	8-Jul-13	31-Oct-13	16-Jul-13 A	25-Nov-13 A	
Facility Water, Sewer & Road Modifications	14-Aug-13	5-Mar-14	14-Aug-13 A	25-Oct-13 A	
Hot Machine Shop Removals & Relocation	28-Mar-13	13-Sep-13	25-Jun-13 A	19-Nov-13 A	
3) Demolition & Civil Works					
LTP to NRC	N/A	3-May-13	N/A	3-May-13 A	
LTP Public Meeting	N/A	20-Aug-13	N/A	20-Aug-13 A	
Turbine Building Removal to +12 Civil Contract	1-Oct-12	16-Oct-13	1-Oct-12 A	12-Sep-13 A	
Civil Works Procurement, Contract Award & Mobilization	18-Dec-12	9-Jan-14	18-Dec-12 A	23-Jul-13 A	
Demo SAS Building	14-Jan-14	11-Mar-14	3-Jul-14 A	30-Oct-14 A	
Demo Hot Machine Shop	14-Jan-14	28-Apr-14	23-Apr-14 A	6-Nov-14 A	
Demo Liquid Rad Waste Building	15-May-14	23-Oct-14	13-Jan-15	24-Jun-15	
Demo Low Level Waste Building	3-Jun-14	24-Jul-14	18-Feb-15	15-Jun-15	Work re-sequenced to improve efficiency with no impact to overall project completion date
Demo Solid Rad Waste Handling Build (SRHB)	15-May-14	6-Aug-14	22-Jul-15	6-Sep-15	Work re-sequenced to improve efficiency with no impact to overall project completion date

HBPP Unit 3 Comparison Forecast to Actual Schedule					
Activity Name	2012 NDCTP Expected Start	2012 NDCTP Expected Finish	Most Recent Forecast Start	Most Recent Forecast Finish	Explanation of Major Changes
Demo High Level Storage Vault Area	26-Jun-14	13-Nov-14	16-Jun-15	17-Sep-15	Work re-sequenced to improve efficiency with no impact to overall project completion date
Slurry Wall Prep & Mobilize	14-Jan-14	24-Jun-14	29-Apr-15	2-Jun-15	Planned to start just before Slurry Wall Construction (see Construct Slurry Wall comment)
Slurry Wall Pre-Trenching	25-Jun-14	13-Nov-14	23-Apr-14 A	23-Mar-16	Impact due to constraints with other below grade structures and drainage modifications
Construct Slurry Wall	22-Oct-14	23-Jul-15	25-Jun-15	20-Jul-16	Impacted by Pre-Trenching delay due to constraints mentioned above
Drain Spent Fuel Pool & Apply Fixatives	28-Jul-15	12-Oct-15	12-Aug-15	14-Apr-15	
Units 1 & 2 Slab/Foundation Removals	22-Apr-15	22-Jun-15	22-May-14 A	10-Jan-17	Unit 2 foundation completed; Unit 1 area re-sequenced, no impact to overall project completion date
Remove TB Slabs	23-Jun-15	6-Oct-15	10-Apr-15	20-Jun-16	
Drywell Liner & Activated Concrete Removals	30-Sep-15	18-Aug-16	4-Apr-17	18-May-17	Work re-sequenced to be removed more efficiently with Caisson
Refuel Building Demo & Containment Installation	23-Aug-16	7-Feb-17	3-Dec-15	24-Oct-16	
SFP Removal/Backfill & CSM Wall Installation	8-Feb-17	9-Nov-17	12-Sep-16	30-Mar-17	
Excavations & Concrete Demo to -25 ft	14-Nov-17	15-Mar-18	12-Sep-16	30-Mar-17	
Excavations & Concrete Demo to -74 ft	20-Mar-18	18-Sep-18	19-May-17	30-Jan-18	
Final Caisson Survey & Backfill to -28	19-Sep-18	31-Dec-18	26-Feb-18	6-Apr-18	
Circ Water & South Yard Piping Removals	28-May-14	28-Oct-14	29-Mar-16	3-May-17	Work re-sequenced to improve efficiency with no impact to overall project completion date
4) Remediation Restoration & Closeout					
Intake Canal Demolition & Remediation	30-Apr-14	10-Sep-14	30-Mar-16	30-Aug-16	Project start date changed to avoid potential site space constraints
Discharge Canal Demolition & Remediation	24-Jun-14	5-Feb-15	30-Dec-14 A	9-Oct-15	
Final Site Restoration	19-Sep-18	14-May-19	10-May-17	14-May-19	
Project Administration & Close-out	15-May-19	13-May-20	15-May-19	13-May-20	

Note: An "A" appearing after the Start or Finish date indicates that the date is the Actual Start or Actual Finish.